Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (canceled)

2. (canceled)

3. (canceled)

4. (canceled)

5. (canceled)

6. (withdrawn) The diffraction grating body according to claim 1, further comprising an anti-reflection film in the interface between the base material having a refractive index n1 and the air, and the interface between the base material having the refractive index n1 and the base material having a refractive index n0.

7. (currently amended) A ~~transmission~~ diffraction grating body, comprising a base material, and a relief diffraction grating formed on the base material, wherein

~~the diffraction grating body is formed of a single base material; and~~ the refractive index n1 of the ~~single~~ base material is 1.9 or more,

the diffraction grating is formed of a concave portion and a convex portion having rectangular shaped cross sections, and the level difference h between the concave portion and the convex portion satisfies the following relationship:

$$h=\lambda 1/(n1-1)$$

and the difference in an optical path between the concave portion and the convex portion is set to correspond to one wavelength with respect to the wavelength λ1, and

a material of the ~~single~~ base material is at least one material selected from the group consisting of Ta_2O_5, [[TiO_2]] ZrO_2, Nb_2O_3, ZnS, $LiNbO_3$ and $LiTaO_3$.

8. (canceled)

9. (canceled)

10. (canceled)

11. (canceled)

12. (canceled)

13. (canceled)

14. (canceled)

15. (currently amended) A semiconductor laser apparatus ~~provided with a diffraction grating body according to claim 7~~, comprising:

a diffraction grating body, comprising a base material, and a relief diffraction grating formed on the base material, wherein

the refractive index n1 of the base material is 1.9 or more,

the diffraction grating is formed of a concave portion and a convex portion having rectangular shaped cross sections, and the level difference h between the concave portion and the convex portion satisfies the following relationship:

$$h=\lambda 1/(n1-1)$$

and the difference in an optical path between the concave portion and the convex portion is set to correspond to one wavelength with respect to the wavelength $\lambda 1$, and

a material of the base material is at least one material selected from the group consisting of Ta_2O_5, [[TiO_2]] ZrO_2, Nb_2O_3, ZnS, $LiNbO_3$ and $LiTaO_3$;

a semiconductor laser for emitting a light beam with wavelength $\lambda 1$ and a light beam with wavelength $\lambda 2$; and

a photodetector for receiving the light beams emitted from the semiconductor laser and carrying out photoelectric conversion; wherein

the diffraction grating body receives the light beam with wavelength $\lambda 2$ and transmits a main beam and generates sub-beams that are $\pm$ first order diffracted light; and

the diffraction grating body, the semiconductor laser and the photodetector are integrated into one package.

~~11~~16. (currently amended) An optical pick-up ~~provided with a diffraction grating body according to claim 7~~, comprising:

a diffraction grating body, comprising a base material, and a relief diffraction grating formed on the base material, wherein

the refractive index n1 of the base material is 1.9 or more,

the diffraction grating is formed of a concave portion and a convex portion having rectangular shaped cross sections, and the level difference h between the concave portion and the convex portion satisfies the following relationship:

$h=\lambda 1/(n1-1)$

and the difference in an optical path between the concave portion and the convex portion is set to correspond to one wavelength with respect to the wavelength $\lambda 1$, and

a material of the base material is at least one material selected from the group consisting of Ta_2O_5, [[TiO_2]] ZrO_2, Nb_2O_3, ZnS, $LiNbO_3$ and $LiTaO_3$;

a first semiconductor laser light source for emitting a light beam with wavelength $\lambda 1$;

a second semiconductor laser light source for emitting a light beam with wavelength $\lambda 2$;

an optical system having an optical disk, the optical system for receiving the light beam with wavelength $\lambda 1$ and the light beam with wavelength $\lambda 2$ and converging the light beam onto a microspot on the optical disk;

a diffraction means for diffracting a light beam reflected from the optical disk; and

a photodetector having a photo detecting portion for receiving the diffracted light diffracted by the diffraction means to output electrical signals in accordance with the amount of the diffracted light; wherein

the diffraction grating body receives the light beam with wavelength λ2 and transmits a main beam and generates sub-beams that are ± first order diffracted light.

17. (new) The optical pick-up according to claim 16, wherein the photo detecting portion comprises a photo detecting portion PD0 for receiving a ± first order diffracted light from the diffraction means, and a distance d1 between the center of the photo detecting portion PD0 and the light emitting spot of the first semiconductor laser light source and a distance d2 between the center of the photo detecting portion PD0 and the light emitting spot of the second semiconductor laser light source substantially satisfy the following relationship:

$$\lambda 1/\lambda 2 = d1/d2.$$

18. (new) The optical pick-up according to claim 16, wherein the diffraction grating body, the semiconductor laser and the photodetector are integrated into one package.

19. (new) An optical information apparatus, comprising:

an optical pick-up, comprising:

a diffraction grating body, comprising a base material, and a relief diffraction grating formed on the base material, wherein the refractive index n1 of the base material is 1.9 or more, the diffraction grating is formed of a concave portion and a convex portion having rectangular shaped cross sections, and the level difference h between the concave portion and the convex portion satisfies the following relationship:

$h=\lambda 1/(n1-1)$

and the difference in an optical path between the concave portion and the convex portion is set to correspond to one wavelength with respect to the wavelength $\lambda 1$, and

a material of the base material is at least one material selected from the group consisting of Ta_2O_5, ZrO_2, Nb_2O_3, ZnS, $LiNbO_3$ and $LiTaO_3$;

a first semiconductor laser light source for emitting a light beam with wavelength $\lambda 1$;

a second semiconductor laser light source for emitting a light beam with wavelength $\lambda 2$;

an optical system having an optical disk, the optical system for receiving the light beam with wavelength $\lambda 1$ and the light beam with wavelength $\lambda 2$ and converging the light beams onto a microspot on the optical disk;

a diffraction means for diffracting a light beam reflected from the optical disk;

a photodetector having a photo detecting portion for receiving the diffracted light diffracted by the diffraction means to output electrical signals in accordance with

the amount of the diffracted light; wherein

the diffraction grating body receives the light beam with wavelength $\lambda 2$ and transmits a main beam and generates sub-beams that are $\pm$ first order diffracted light;

a focusing control means for focusing the light beams on the optical disk;

a tracking control means for tracking the light beams on the optical disk; and

an information signal detecting means for detecting the output electrical signals; and further comprising:

a moving means for moving the optical pick-up; and

a rotating means for rotating the optical disk.